



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PC250-430
Job Sheet 179659



Part No: PC250-430

Job Qty: 4 ea

Part Name: Outer Keeper



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 6/20/18

Job Tracking No:

Due Date: 6/29/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG PC250-430 Rev A IPP Rev A 18.03.01 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Start up Operation	4 Ea	6/29/18	6/29/18	0.00	0.00	Start Up Waterjet2		DE 18/06/2018
110	Waterjet	4 pcs	6/29/18	6/29/18	0.00	0.40	Waterjet 2 OMAX		DE 18/06/2018
120	QC	4 pcs	6/29/18	6/29/18	0.00	0.00	QC2 Waterjet-2		DE 18/06/2018
130	QC	4 pcs	6/29/18	6/29/18	0.00	0.00	QC8-6		38
140	Small Fab	4 pcs	6/29/18	6/29/18	0.00	0.40	Small Fab-3		9-89
150	QC	4 pcs	6/29/18	6/29/18	0.00	0.00	QC5		AUG 16 2018 38
160	Packaging	4 pcs	6/29/18	6/29/18	0.00	0.00	Packaging3-1		DAS 9-89
170	QC21-SA	4 Ea	6/29/18	6/29/18	0.00	0.00	QC21		21 SEP 11 2018 9-89

Part Op 100 -

Descriptions: 110 - 1-Cut as per Dwg Dwg Rev: A Prog Rev: A 2-Deburr if necessary ***HOLE WILL BE DRILL AT ASSY***

140 - 1-Form as per DWG. 2-Remove tabs

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M304S188	304 Sheet 0.188	1.6400 sf (.41 ea)	100-Start up Operation	FM 130454

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Start up Operation	M304S188	2	34	0

Part Specifications

Specifications could not be found.

Doc. _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed:

Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____ Date : _____	DISPOSITION Rework ☐ Scrap ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Quality ☐ Other ☐			
		MRB (QSI042) Approval			
Description Work		Completed By			
		Lead hand / Supervisor Approval Verification			
		QC / QA Coordinator Approval			

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DART
AEROSPACE

Container No: S084454

Part: PC250-430

Job No: 179659

Serial No/Batch: S084454

Revision: A

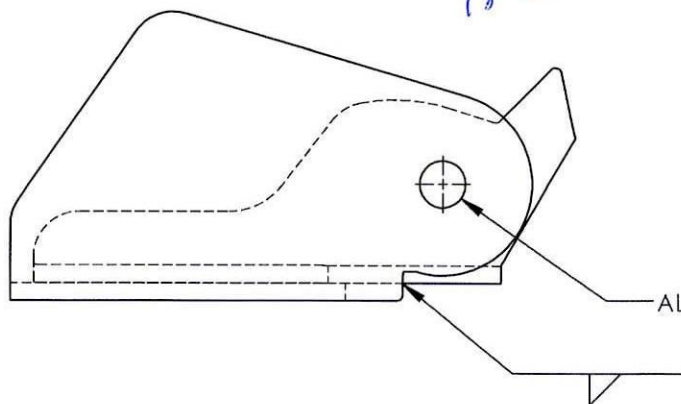
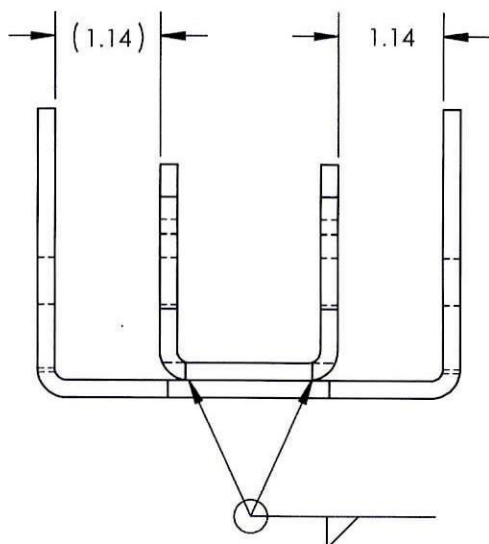
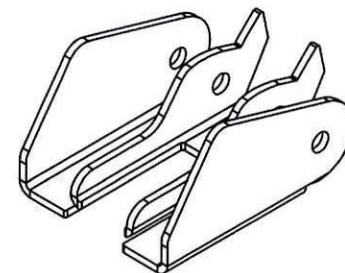
Date: 06/26/18

Root Cause		
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ OTHER : _____
☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes	☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center	☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
		AS DRAWN BY APICAL.	6/12/2013	CFS	
A	14-0129	CH'D TITLE BLOCK WAS RED BARN IS DART. ADDED BAG & LABEL NOTE. CORRECTED TITLE & DWG No ON ALL SHEETS. PC250-420 ADDED MISSING DIMS R.73, 2X R.50, R2.00, 3X R.06. PC250-430 ADDED MISSING DIMS R.50 & R.98.	8/14/2014	DPD	RW

SHOP COPY
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UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 179655 M.C.S.
18-06-20



ALIGN HOLES BEFORE WELDING

NOTES:

1. NICKEL PLATE .0004 - .0006, BAKE AFTER PLATING.
2. BAG & LABEL WITH BATCH NUMBER.

DART AEROSPACE	
TITLE KEEPER ASSEMBLY	
DWG NO. PC250-400	REV A
MAT'L UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1	DRAWN BY: APICAL APPROVED: <i>D Weil</i> HEAT TREAT: SEE NOTE 1 FINISH: USED ON MODEL
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE 1:2	DATE 7/8/2004
SHEET 1 OF 3	

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
			PC250-420	1	INNER KEEPER	1030	3/16 X 6 X 6-1/8	2
			PC250-430	1	OUTER KEEPER	1030	3/16 X 5-3/4 X 10-3/8	3

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

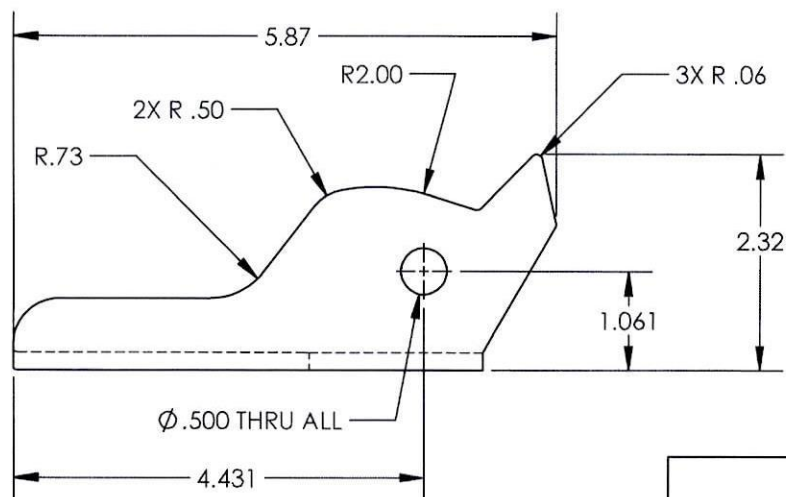
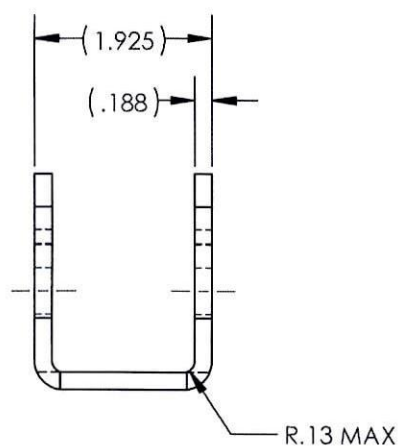
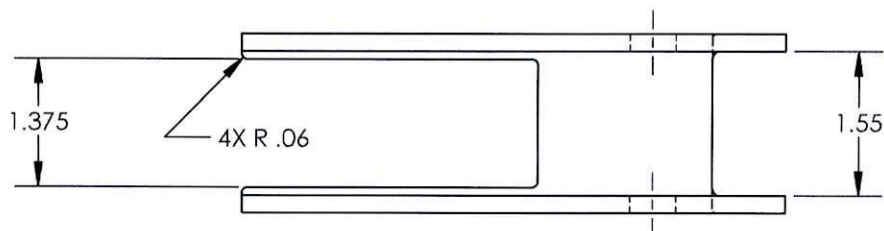
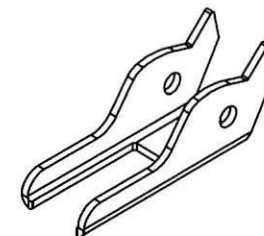
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
A	14-0129	PC250-420 ADDED MISSING DIMS R.73, 2X R.50, R2.00, 3X R.06.	8/14/2014	DPD	RW



PC250-420
INNER KEEPER

DART AEROSPACE	
TITLE KEEPER ASSEMBLY	
DWG NO. PC250-400	REV A
MAT'L 1030	DRAWN BY: APICAL
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
.XXX ± .005	FRACTIONS ± 1/8
.XX ± .01	ANGLES ± 5°
.X ± .1	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	HEAT TREAT FINISH SEE SHEET 1, NOTE 1
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	SPEC
USED ON MODEL	
SCALE 1:2	DATE 7/8/2004
SHEET 2 OF 3	

DQ4: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

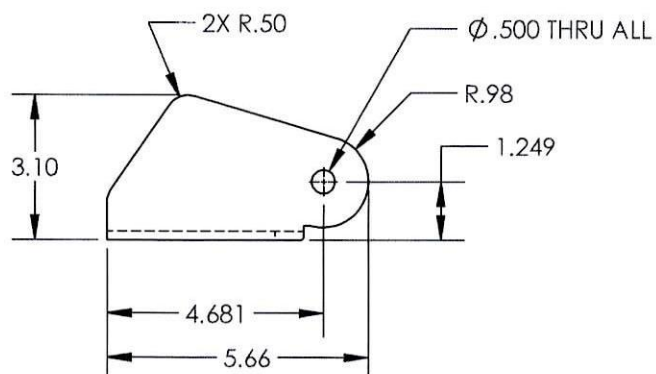
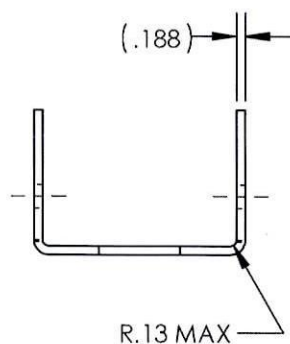
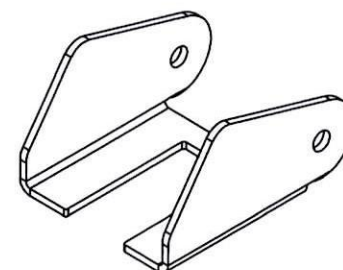
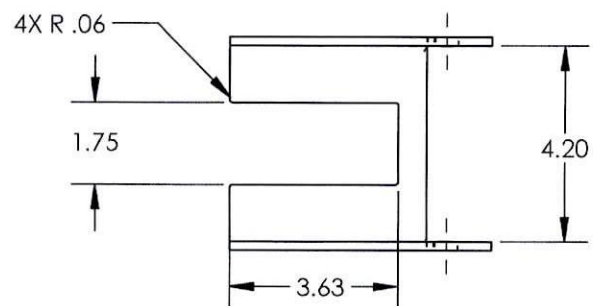
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
A	14-0129	PC250-430 ADDED MISSING DIMS R.50 & R.98.	8/14/2014	DPD	RW



PC250-430

OUTER KEEPER

DART AEROSPACE	
TITLE KEEPER ASSEMBLY	
DWG NO. PC250-400	REV A
MAT'L 1030	DRAWN BY: APICAL
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>D Weil</i>
.XXX ± .005 FRACTIONS ± 1/8	HEAT TREAT
.XX ± .01 ANGLES ± 5°	FINISH SEE SHEET 1, NOTE 1
.X ± .1	SPEC
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	USED ON MODEL
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE 1:4	DATE 7/8/2004 SHEET 3 OF 3



Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					